

### Abstract of the Disclosure

To provide a resistance element having an electric resistance body with excellent stability and a method of manufacturing the same. The resistance element includes an electric resistance body, on a base body surface, consisting of a carbon nanotube structure layer 14, which configures a mesh structure in which at least plural carbon nanotubes are cross-linked to one another. The method of manufacturing the resistance element includes: an applying step of applying the base body surface 12 with a liquid solution containing carbon nanotubes having functional groups; and a cross-linking step of forming the carbon nanotube structure layer 14, used as an electric resistance body, that configures a mesh structure in which the plural carbon nanotubes are cross-linked to one another through curing of the liquid solution after application.